

IN THE SPECIFICATION

Please amend the Title on page 1 as follows:

~~SUSPENSION, HEAD GIMBAL ASSEMBLY, HEAD ARM ASSEMBLY WITH  
THE HEAD GIMBAL ASSEMBLY AND DISK DRIVE DEVICE WITH THE HEAD ARM  
ASSEMBLY~~ A SUSPENSION FOR A RECORDING AND/OR REPRODUCING HEAD

Please replace the paragraph at page 9, lines 6-9, with the following rewritten paragraph:

It is also preferred that the first at least one leaf spring section is located at the rear of a center of an ~~unprung~~ unsprung mass of the head gimbal assembly except for the head slider.

Please replace the paragraph page 15, lines 11-20, with the following rewritten paragraph:

To the magnetic head slider of the HGA, in general, a force toward the magnetic disk surface due to the load generated by the leaf spring section is applied. Also, there is a positive force or a lifting force and a negative force or an attraction force generated depending upon the shape of the air bearing surface (ABS) of the magnetic head slider between the magnetic head slider and the rotating magnetic disk. Therefore, if an impact is applied to the HGA from outside, a center of the ~~unprung~~ unsprung mass of the system and the magnetic head slider will individually operate.

Please replace the paragraph at page 15, lines 21-25, with the following rewritten paragraph:

Fig. 6a indicates the operation of the conventional HGA, and Fig. 6b indicates the operation of the HGA in this embodiment. In these figures,  $m_1$  denotes an ~~unprung~~ unsprung

mass of the HGA except for the magnetic head slider, and  $m_2$  denotes a mass of the magnetic head slider.

Please replace the paragraph at page 16, lines 1-20, with the following rewritten paragraph:

As shown in Fig. 6a, the conventional HGA has a cantilever beam structure, in which one end thereof is connected to a fixing member 61 such as a base plate or a support arm through a support spring member 60 for generating a load such as a leaf or plate spring, and the other end or a free end thereof is connected to the magnetic head slider. According to this structure, when an impact is applied from outside, a large turning moment  $m_1 l_1$  is produced at the center of the ~~unprung~~ unsprung mass  $m_1$  of the system due to the long distance  $l_1$  between the center and the fixing member 61, and the restraint force of the support spring member 60 against the vibration at the top end section of the HGA in a direction of the applied impact is small because it is configured that the load is generated only by the repulsion force of the leaf spring section of this support spring member 60. Also, since the turning moment  $m_2 l_2$  produced at the magnetic head slider and the turning moment  $m_1 l_1$  produced at the center of the ~~unprung~~ unsprung mass  $m_1$  of the system differ with each other, vibrations with different frequencies are mutually interfered and thus it is tough to damp the vibrations.

Please replace the paragraph beginning at page 16, line 21 to page 17, line 17, with the following rewritten paragraph:

Contrary to this, as shown in Fig. 6b, the HGA of this embodiment is connected through a support spring member 60' constituted by a leaf spring section folded back from one end of the HGA and bent, to a fixing member 61' at the front of the member 60'. According to this structure, a turning moment  $m_1' l_1'$  produced at the center of the ~~unprung~~ unsprung mass  $m_1'$

of the system is small due to the short distance  $l_1'$  between the center and the fixing member 61'. In addition, since the restraint force of the support spring member 60' against the vibration at the top end section of the HGA is operated in parallel with the applied impact direction because it is configured that the load is generated not only by the deflection force of the leaf spring section of the support spring member 60' but also by the compressed spring force of the support spring member 60' in a perpendicular direction or the impact direction, it is possible to quickly damp the vibrations at the top end section of the HGA. Furthermore, since both the turning moment  $m_2 l_2$  produced at the magnetic head slider and the turning moment  $m_1 l_1$  produced at the center of the ~~unprung~~ unsprung mass  $m_1$  of the system are small, vibrations mutually interfered are small and thus it is easy to damp the vibrations.

Please replace the paragraph at page 22, lines 3-6, with the following rewritten paragraph:

Fig. 9 illustrates operations of the HGA in this embodiment. In the figure,  $m_1$  denotes an ~~unprung~~ unsprung mass of the HGA except for the magnetic head slider, and  $m_2$  denotes a mass of the magnetic head slider.

Please replace the paragraph at page 22, lines 7-25, with the following rewritten paragraph:

As shown in the figure, the HGA of this embodiment is connected, through a support spring member 90a constituted by leaf spring sections folded back from the rear end section of the HGA and bent, and through a lifting spring member 90b constituted by a leaf spring section folded back from the HGA at the rear of the support spring member 90a and bent, to a fixing member 91 at the front of the respective members 90a and 90b. According to this structure, effective advantages of the lifting spring member 90b can be provided in addition to the

advantages of the embodiment of Fig. 1. That is, although a turning moment is produced at the center of the ~~unprung~~ unsprung mass  $m_1$  of the system when an impact is applied from outside, a turning moment produced at the magnetic head slider is canceled by a repulsion force of the lifting spring member 90b resulting the repulsion forces of the spring members to greatly decrease. According to the simulation result, the repulsion force generated in this embodiment when an impact is applied can be decrease to about 40 % of that in the conventional HGA.